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17 UNITED STATES DISTRICT COURT

18 FOR THE NORTHERN DISTRICT OF CALIFORNIA

19 SAN FRANCISCO DIVISION

20 | AMERICAN FEDERATION OF | Case No. 3:25-cv-03698-SI |
GOVERNMENT EMPLOYEES, AFL-CIO,
21 et al.,

DECLARATION OF MATTHEW
22   Plaintiffs, **GORDON MCKINZIE IN SUPPORT OF**
MOTION FOR PRELIMINARY
23   v. **INJUNCTION**

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25 DONALD J. TRUMP, in his official capacity
as President of the United States, et al.,
26
    Defendants.
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Declaration of Matthew Gordon McKinzie in Supp. of Motion for Preliminary Injunction; Case No. 3:25-cv-03698-SI

DECLARATION OF MATTHEW GORDON MCKINZIE, PH.D.

I, Matthew Gordon McKinzie, Ph.D., declare as follows:

1. I make the following declaration from personal knowledge, information, and belief, and if called to testify, I could competently testify thereto.

2. I am a Senior Director for Data and Policy Analysis at the Natural Resources Defense Council ("NRDC"). I have been employed by the NRDC since 1997, except between 2004-2007, during which time I did some consulting for NRDC. In my previous roles at NRDC, I served as a Project Scientist, Senior Scientist, Nuclear Program Director, and Senior Director for Planning and Operations in the Climate and Clean Energy Program.

3. In my current role at NRDC, I manage and am responsible for the oversight of the Data Science and Policy Analysis teams in its Science Office, reporting to NRDC's Chief Science Officer. I also work in my individual capacity as a scientist and analyst at NRDC. I hold a Ph.D. in nuclear physics from the University of Pennsylvania and a master's in computer science from the Georgia Institute of Technology.

4. NRDC is a not-for-profit environmental and public health membership organization that works to ensure the rights of all people to clean air, clean water, and healthy communities. To achieve its goals of protecting public health and the environment, NRDC engages in research, policy analysis, advocacy, and public education.

5. My work at NRDC is affected by the current and reported federal Agency Reductions in Force and Reorganizations Planning ("ARRP").

6. I am aware of press reports that estimate substantial layoffs in the Department of Energy ("DOE"), the Department of the Interior ("DOI"), the Centers for Disease Control and Prevention ("CDC"), the Environmental Protection Agency ("EPA"), the National Oceanic and Atmospheric Administration ("NOAA"), and the U.S. Department of

Agriculture ("USDA").[1] My work at NRDC relies on each of these agencies. If these federal agencies proceed with the reported large-scale cuts, I believe that I and my teams in the Science Office will be substantially less able to perform analyses necessary to support NRDC's advocacy.

7. For example, the DOE's Low-Income Energy Affordability Database ("LEAD") tool provides data on income, energy costs, and housing. The LEAD dataset allows users to build profiles and explore policies based on various geographic areas and household energy characteristics. It demonstrates the energy burden in a particular area, or the percentage of household income that goes toward electricity and heating utility costs. NRDC uses this data to identify communities with the most need for reduced energy costs when consulting with program teams within NRDC and outside partners. NRDC also used LEAD data in part to inform partners about the impacts of potential energy efficiency and weatherization programs on communities. Once the data becomes

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[1] Jory Heckman, *Energy Department Extends hiring freeze, deems 43% workforce non-essential in reorganization plan*, Fed. News Network (April 4, 2025, at 3:15 pm), https://federalnewsnetwork.com/workforce/2025/04/energy-department-extends-hiring-freeze-deems-43-workforce-non-essential-in-reorganization-plan/; Emily Davies & Jeff Stein, *Internal White House document details layoffs plans across U.S.*, Wash. Post (March 27, 2025), https://www.washingtonpost.com/politics/2025/03/27/federal-worker-layoffs-government-agencies/; Natalie Alms & Eric Katz, *Thousands of layoffs to hit Interior, National parks imminently*, Gov't Exec., (May 7, 2025, at 8:50 pm) https://www.govexec.com/workforce/2025/05/thousands-layoffs-hit-interior-national-parks-imminently/405145/; Dep't of Health and Hum. Servs., *Fact Sheet: HHS' Transformation to Make America Healthy Again*, (April 2, 2025) https://www.hhs.gov/press-room/hhs-restructuring-doge-fact-sheet.html; https://thehill.com/policy/energy-environment/5245481-trump-eyes-major-cuts-to-noaa-research/; https://www.nytimes.com/2025/03/17/climate/trump-eliminates-epa-science.html; Amudalat Ajasa, *EPA to fire or reassign more than 450 staffers working on environmental justice, DEI*, Wash. Post (April 22, 2025) https://www.washingtonpost.com/climate-environment/2025/04/22/epa-staff-cuts-environmental-justice-dei/; Gov't Exec., *USDA to slash headquarters, other staff and relocate some to new 'hubs' around the country* (Apr. 7, 2025), https://www.govexec.com/workforce/2025/04/usda-slash-headquarters-other-staff-and-relocate-some-new-hubs-around-country/404371;

Gov't Exec., *White House pitches layoffs, local office closures and program eliminations at USDA* (Apr. 15, 2025), available at: https://www.govexec.com/management/2025/04/white-house-pitches-layoffs-local-office-closures-and-program-eliminations-usda/404580/.

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outdated, any analysis based on that data is not useful, particularly as electricity rates

are increasing with increasing demand in many parts of the United States.

8. One colleague whose work I oversee frequently uses several DOE datasets that are

critical for her work on NRDC's energy policy analysis and that are presently at risk due

to Reductions in Force. These include the U.S. Energy Information Administration

(EIA) Annual Energy Outlook and DOE Annual Technology Baseline. Some of these

databases, like the Annual Energy Outlook and Annual Technology Baseline, serve as

essential assumption sources for NRDC's energy systems modeling, serving as inputs

for future electricity demand, technology costs and performance, and future fuel prices.

9. The reported cuts at the CDC will also have an impact on my work. I often use the CDC

Places database as a resource, which provides data on various health indicators for small

areas across the United States, including counties, cities, census tracts, and zip code

tabulation areas. This database helps me, and my team, understand the burden and

distribution of health issues at the local level which very often correlate with pollution

sources. One colleague, whose work I oversee, also often uses CDC PLACES, CDC

Social Vulnerability Index (SVI), in addition to EPA EJScreen, FEMA NFIP

Community Status Book, and EPA's Unregulated Contaminant Monitoring Rule 5

(UCMR5). These datasets are essential for NRDC's work in environmental health

analysis, community risk assessment, and policy development. For example, my

colleague accesses CDC PLACES and CDC SVI every quarter to identify health

disparities and identify vulnerable communities for various public health projects.

EJScreen is crucial for incorporating environmental justice considerations into various

projects and policy reviews. UCMR5 provides valuable data on PFAS contaminants in

drinking water, which NRDC uses to assess potential public health risks and support

Declaration of Matthew Gordon McKinzie in Supp. of Mot. for Preliminary Injunction; Case No: 3:25-cv-03698-SI 3

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water quality initiatives. Additionally, NRDC uses data from FEMA's NFIP Community

Status Book annually to update our monitoring of communities affected by flooding and

to address the disparities these communities face due to inadequate insurance

protections.

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10. In addition, the CDC Places and the LEAD datasets are critical to support NRDC's

work with city partners. Cities often request NRDC's technical assistance to understand

how potential city programs can benefit residents. NRDC uses CDC Places and LEAD

datasets to respond to these requests for technical assistance from cities.

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11. The reported ARRP at the DOI will also significantly impact my work to support

NRDC's wetland conservation advocacy. The U.S. Fish and Wildlife Service is a bureau

within the DOI that maintains the National Wetlands Inventory (NWI). Also, another

bureau within the DOI, the U.S. Geological Survey, maintains the National

Hydrography Dataset ("NHD"). I routinely rely on the NWI and the NHD, which are

widely recognized as the best available and most comprehensive data sources for

national-scale geographic information about freshwater and coastal marine resources,

which can inform decision makers about options for water policies. I co-authored a

report that relied heavily on these two datasets to create models of scenarios

demonstrating the total area of wetlands without federal Clean Water Act protections

following the Supreme Court's decision in *Sackett v. EPA*, 598 U.S. 651 (2023). I also

used these databases to inform my testimony at an EPA "Waters of the United States"

listening session for environmental and conservation stakeholders held on May 1, 2025.

The NWI and NHD are the primary national-level databases that contain detailed

information on wetlands and hydrography in the United States. If these databases

became unavailable or stale, I would not be able to do national-level analysis of

comprehensive wetlands and hydrographic characteristics, which are essential to NRDC's work on advocating for federal Clean Water Act protections and understanding the implications of federal and state wetlands policies.

12. My work also relies on databases maintained by the Bureau of Land Management (BLM), a division of the DOI. I use datasets within BLM's Geospatial Business Platform Hub on a regular basis. I used this data to analyze the environmental impacts of federal oil and gas lease sales. This information helps guide NRDC's use of its resources and also underpins NRDC's advocacy concerning public lands that includes preserving its wilderness characteristics and wildlife habitat.

13. The reported ARRP at the EPA will also significantly impact my work. I am aware of press reports that the EPA Office of Environmental Justice and External Civil Rights will suffer large-scale cuts, and I am also aware that this Office maintained and updated EJScreen. EJScreen is an online tool that combines demographic, public health, economic, and environmental data to help identify areas with potential environmental justice concerns. It locates areas that may have disproportionate exposure to environmental hazards and identifies vulnerable populations. I use this tool on a regular basis to assist NRDC when engaged with place-based work to understand the impact hazardous facilities have on communities.

14. I also oversee the work of a member of my team who uses the EPA's Nationwide Environmental Radiation Monitoring ("RadNet") system on a recurring basis. RadNet has 140 radiation air monitors in 50 states and runs 24 hours a day, 7 days a week, collecting near-real-time measurements of gamma radiation. NRDC's Science Office uses data from RadNet to assess changes in background levels of environmental

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radiation. This information aids in making informed decisions to protect the public from the harmful effects of radiation.

15. One of the colleagues whose work I oversee frequently uses EPA's EJScreen, EPA Power Plants and Neighboring Communities Mapping Tool, and EPA Greenhouse Gas Reporting Program and associated materials (e.g., FLIGHT Data and the U.S. GHG Inventory). NRDC uses large facility emissions data from FLIGHT for various data visualization and data analysis projects, allowing NRDC to have a more complete view of the different industrial sources of pollution – from oil & gas production to industrial facilities to power plants – to inform emissions analyses at the state and federal level and analyze the potential impact of different emissions policies on individual sectors and states. These emissions data are often overlaid with socio-economic indicators, including EJScreen and EPA's Power Plants and Neighboring Communities Mapping Tool, to incorporate demographic and environmental justice considerations into various projects.

16. I am also aware of reports of cuts to USDA. Another colleague whose work I oversee often uses the USDA CroplandCROS database in mapping projects related to pesticide policy proposals across the country, which enables NRDC to accurately examine agricultural conditions.

17. I am further aware of reports of cuts to NOAA. My team's work requires the Hybrid Single-Particle Lagrangian Integrated Trajectory model (HYSPLIT) developed by NOAA. This model predicts where air masses and pollutants will travel based on wind patterns and other meteorological data. I supervise and manage an NRDC scientist who uses HYSPLIT to model air transportation of hazardous materials, in particular, to trace

Declaration of Matthew Gordon McKinzie in Supp. of Mot. for Preliminary Injunction; Case No: 3:25-cv-03698-SI 6

the transport of radioactive material. After discussing the projects and assignments and his overall approach, I review the outputs of his calculations based on HYSPLIT data.
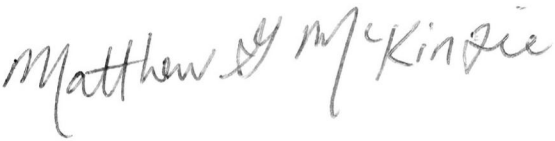
18. My team has also used NOAA's HYSPLIT to understand the pollution impact of the Regional Greenhouse Gas Initiative (RGGI) program's implementation. This is a market-based environmental policy that is a major piece of NRDC's climate and energy work. NRDC was concerned that the spatial reallocation of pollution under RGGI could affect disadvantaged communities. I supervised a colleague who employed HYSPLIT to study the transport of facility emissions of particulate matter (PM 2.5), nitrogen oxides, and sulfur dioxides, and where these pollutants will be deposited. My team relied on this tool because HYSPLIT is reliable for modeling the dispersal and concentration distribution of pollutants.

19. I often use multiple federal databases in combination in my work at NRDC. For example, I used CDC Places, and EJScreen tools, along with EPA's Areal Locations of Hazardous Atmospheres (ALOHA) modeling program for NRDC's Toxic Substances Control Act citizens' petition to EPA.[2] The modeling program was used in the petition to demonstrate the risk that a hazardous chemical used at oil refineries poses to nearby community members and refinery workers.

20. If NRDC lost access to any of these datasets, or if these datasets fail to be updated or continue including complete and reliable information, due to agency reductions in force and reorganizations, NRDC would be significantly less able to conduct data-driven analyses, assess community impacts of policies, understand historical energy system trends, and support evidence-based decision-making.

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[2] NRDC, *Hydrogen Fluoride at Refineries* (Feb. 11, 2025) https://www.nrdc.org/court-battles/hydrogen-fluoride-refineries#toxics-substances-control-act-petitio (last visited May 13, 2025).

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2   I declare under penalty of perjury that the foregoing is true and correct and that this declaration

3   was executed on May 13, 2024, at Rockville, MD.

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8   MATTHEW G MCKINZIE

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